IFWO

RAW SEQUENCE LISTING   DATE: 09/01/2004
PATENT APPLICATION: **US/10/807,556**   TIME: 12:50:42

Input Set : **N:\Crf3\RULE60\10807556.raw**
Output Set: **N:\CRF4\09012004\J807556.raw**

SEQUENCE LISTING
```
 3  (1) GENERAL INFORMATION:
 7      (i) APPLICANT: Charles Kunsch
 8                    Gil H. Choi
 9                    Patrick S. Dillon
10                    Craig A. Rosen
11                    Steven C. Barash
12                    Michael R. Fannon
20     (ii) TITLE OF INVENTION: Staphylococcus aureus Polynucleotides and
21                              Sequences
25    (iii) NUMBER OF SEQUENCES: 5255
29     (iv) CORRESPONDENCE ADDRESS:
31          (A) ADDRESSEE: Human Genome Sciences, Inc.
33          (B) STREET: 9410 Key West Avenue
35          (C) CITY: Rockville
37          (D) STATE: Maryland
39          (E) COUNTRY: USA
41          (F) ZIP: 20850
45      (v) COMPUTER READABLE FORM:
47          (A) MEDIUM TYPE: Diskette, 3.50 inch, 1.4Mb storage
49          (B) COMPUTER: HP Vectra 486/33
51          (C) OPERATING SYSTEM: MSDOS version 6.2
53          (D) SOFTWARE: ASCII Text
57     (vi) CURRENT APPLICATION DATA:
59          (A) APPLICATION NUMBER: US/10/807,556
61          (B) FILING DATE: 24-Mar-2004
63          (C) CLASSIFICATION:
67    (vii) PRIOR APPLICATION DATA:
69          (A) APPLICATION NUMBER: US/08/781,986
71          (B) FILING DATE: 03-JANUARY-1997
75   (viii) ATTORNEY/AGENT INFORMATION:
77          (A) NAME: Benson, Bob
79          (B) REGISTRATION NUMBER: 30,446
81          (C) REFERENCE/DOCKET NUMBER: PB248PP
85     (ix) TELECOMMUNICATION INFORMATION:
87          (A) TELEPHONE: (301) 309-8504
89          (B) TELEFAX: (301) 309-8512
97  (2) INFORMATION FOR SEQ ID NO: 1:
99      (i) SEQUENCE CHARACTERISTICS:
100         (A) LENGTH: 5895 base pairs
101         (B) TYPE: nucleic acid
102         (C) STRANDEDNESS: double
103         (D) TOPOLOGY: linear
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ENTERED

RAW SEQUENCE LISTING   DATE: 09/01/2004
PATENT APPLICATION: US/10/807,556   TIME: 12:50:42

Input Set : N:\Crf3\RULE60\10807556.raw
Output Set: N:\CRF4\09012004\J807556.raw

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C--> (arrow pointing to line 111)

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301 TGTTAAGTGC TAAACTTTAG GTTTTTTAAG GAGGAACAAT CATGCTAAAA CCAATTGGAA    5820
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305 TGATAGTGCT AAAGA                                                     5895
307 (2) INFORMATION FOR SEQ ID NO: 2:
309     (i) SEQUENCE CHARACTERISTICS:
310         (A) LENGTH: 6796 base pairs
311         (B) TYPE: nucleic acid
312         (C) STRANDEDNESS: double
313         (D) TOPOLOGY: linear
317     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
319 TTTGAAAAAA CAAGGTACGA TTGGTTTAAT AACATATATG AGAACCGATT CTACACGTAT      60
321 TTCAGATACT GCCAAAGTTG AAGCAAAACA GTATATAACT GATAAATACG GTGAATCTTA     120
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325 ACCTTCAAGT ACTATGCGTA CGCCAGATGA TATGAAGTCA TTTTTGACGA AAGACCAATA     240
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RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 09/01/2004
PATENT APPLICATION: US/10/807,556   TIME: 12:50:43

Input Set : N:\Crf3\RULE60\10807556.raw
Output Set: N:\CRF4\09012004\J807556.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 5870
Seq#:2; N Pos. 6413,6515
Seq#:3; N Pos. 12
Seq#:4; N Pos. 13226,13259,13306
Seq#:5; N Pos. 7405,8480
Seq#:6; N Pos. 21,86,1981
Seq#:7; N Pos. 530
Seq#:10; N Pos. 812
Seq#:12; N Pos. 4533,6063
Seq#:13; N Pos. 40
Seq#:14; N Pos. 15,17
Seq#:15; N Pos. 1136,1641
Seq#:16; N Pos. 110,151,166,12925,12983
Seq#:18; N Pos. 30,71
Seq#:19; N Pos. 1009,5174
Seq#:20; N Pos. 50,10414,10464
Seq#:21; N Pos. 1916,3628,3632
Seq#:22; N Pos. 722
Seq#:24; N Pos. 566
Seq#:25; N Pos. 5455
Seq#:26; N Pos. 4877,4891,4900
Seq#:27; N Pos. 578
Seq#:28; N Pos. 1
Seq#:29; N Pos. 18
Seq#:31; N Pos. 8879,13834
Seq#:32; N Pos. 10002,10004,10009,10011
Seq#:33; N Pos. 9,14,102,7495,7548
Seq#:35; N Pos. 779,799,832
Seq#:36; N Pos. 6867,6885
Seq#:38; N Pos. 16340,16343,23432,23434,23436
Seq#:39; N Pos. 4416,4433,4460
Seq#:42; N Pos. 482
Seq#:44; N Pos. 21,9821
Seq#:46; N Pos. 98,16804,16809,16822
Seq#:47; N Pos. 3938,3961,3979
Seq#:48; N Pos. 7775
Seq#:49; N Pos. 1107
Seq#:50; N Pos. 5594
Seq#:51; N Pos. 9,26,28
Seq#:52; N Pos. 6340,6420
Seq#:53; N Pos. 464,548,11126,13852
Seq#:54; N Pos. 117,3378,3380
Seq#:55; N Pos. 984,995,1021,1051
Seq#:56; N Pos. 13161,13577

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 09/01/2004
PATENT APPLICATION: US/10/807,556   TIME: 12:50:43

Input Set : N:\Crf3\RULE60\10807556.raw
Output Set: N:\CRF4\09012004\J807556.raw

```
Seq#:57; N Pos. 12850
Seq#:58; N Pos. 9,13,43,8541,8726
Seq#:59; N Pos. 1416,5064,16381
Seq#:60; N Pos. 2069,2071
Seq#:61; N Pos. 5
Seq#:62; N Pos. 10,19,6002
Seq#:63; N Pos. 8,19,83,1751,8059,8119
```

VERIFICATION SUMMARY   DATE: 09/01/2004
PATENT APPLICATION: **US/10/807,556**   TIME: 12:50:43

Input Set : **N:\Crf3\RULE60\10807556.raw**
Output Set: **N:\CRF4\09012004\J807556.raw**

9 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]
1 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]
5 M:220 C: Keyword misspelled or invalid format, [(ix) TELECOMMUNICATION INFORMATION:]
11 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=1
21 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=2
559 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=3
573 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=4
147 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=5
1397 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=6
1547 M:111 C: (47) String data converted to upper case,
1565 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=8
1647 M:111 C: (47) String data converted to upper case,
1693 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=10
1727 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=11
2139 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=12
2321 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=13
2375 M:111 C: (47) String data converted to upper case,
2423 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=15
2563 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=16
3051 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=17
3069 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=18
3135 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=19
3385 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=20
3753 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=21
3881 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=22
4101 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=23
4685 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=24

VERIFICATION SUMMARY DATE: 09/01/2004
PATENT APPLICATION: **US/10/807,556** TIME: 12:50:43

Input Set : **N:\Crf3\RULE60\10807556.raw**
Output Set: **N:\CRF4\09012004\J807556.raw**

925 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=25
101 M:111 C: (47) String data converted to upper case,
11 Repeated in SeqNo=26
293 M:111 C: (47) String data converted to upper case,
78381 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5192 after pos.:144
78565 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5194 after pos.:304
79049 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5202 after pos.:48
79095 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5203 after pos.:0
41 Repeated in SeqNo=5203
79392 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5207 after pos.:176
41 Repeated in SeqNo=5207
79614 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5211 after pos.:0
79797 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5213 after pos.:272
80115 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5220 after pos.:112
80229 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5222 after pos.:64
80547 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5227 after pos.:112
81319 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5235 after pos.:880
81340 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5236 after pos.:16
41 Repeated in SeqNo=5236
81586 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5240 after pos.:0
41 Repeated in SeqNo=5240
82054 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5245 after pos.:176
82654 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5250 after pos.:176
82675 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5251 after pos.:0
82840 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5252 after pos.:240
83143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5255 after pos.:144